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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,102	02/01/2005	Chojiro Kuriyama	10921.0276USWO	8534
23552	7590	10/18/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			DINKINS, ANTHONY	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/523,102

Applicant(s)

KURIYAMA, CHOJIRO

Examiner

Anthony Dinkins

Art Unit

2831

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 6, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>Paper No(s)/Mail Date <u>2/05</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|---|--|

### ***Abstract***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Abstract, line 1, change "comprising" to --having--.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 7, 8, 9, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000188241. Regarding claim 1, JP 2000188241 disclose in Figure 1, a niobium capacitor comprising: an anode (1) dielectric layer (6) formed on the anode, wherein the junction region between the anode and the dielectric layer contains manganese (see abstract). Regarding claim 3, wherein the anode has a surface layer with niobium oxide as it main component. Regarding claim 4, wherein the niobium oxide is an interstitial compound due to the sintering of the anode body. Regarding claim 7, the anode is a porous sintered body of a compressed niobium containing

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powder, see translation page 4 of 6. Regarding claim 8, wherein the niobium-containing powder has a surface layer containing manganese. Regarding claim 9, wherein the junction region contains NbO and Mn (see translation). Regarding claim 10, wherein the junction region contains MnO<sub>2</sub> (see translation page 4 of 6).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5, 11, 12, 13, 14, 15, 16, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000188241. Regarding claim 2, JP 2000188241 discloses the claimed invention except for having the desired material for the dielectric layer being Nb<sub>2</sub>O<sub>5</sub>. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the dielectric layer to contain Nb<sub>2</sub>O<sub>5</sub>, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Regarding claim 5, JP 2000188241 discloses the claimed invention except for having the desired material for the anode main component to be made of niobium nitride. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the niobium nitride material as the main component for the anode surface layer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

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Regarding claims 11 and 12, JP 2000188241 discloses the claimed invention except for having the junction region to have the desired weight percentage for the manganese material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the junction region to have the desired weight percentage for the manganese material, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding claim 13, JP 2000188241 discloses the claimed invention except for having the desired material for the electrolyte layer being  $\text{MnO}_2$ . It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the electrolyte layer to contain  $\text{MnO}_2$ , since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 14, JP 2000188241 disclose an anode (1) containing niobium, a dielectric layer (7) formed on the anode. JP 2000188241 discloses the claimed invention except for having the manganese material as apart of the anode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the manganese material as a part of the anode, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Regarding claim 15, JP 2000188241 disclose the claimed invention except for having the niobium containing powder containing in the surface thereof the desired weight percentage for the manganese material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the niobium containing powder containing in the surface thereof the desired weight percentage for

the manganese material, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding claim 16, JP 2000188241 discloses the claimed invention except for having the manganese material being present in the doped sintered body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the manganese material as part of the doped sintered body, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 17, JP 2000188241 discloses a niobium capacitor having an anode (1) containing niobium, and forming a dielectric layer containing niobium oxide as its main component (see translation page 3 of 6). JP 2000188241 discloses the claimed invention except for having the desired weight percentage for the manganese in the dielectric layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the desired weight percentage for the manganese material in the dielectric, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding claim 20, the anode contains niobium as its main component.

#### ***Allowable Subject Matter***

Claims 6, 18, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takada et al.	6,207,327
Pozdeev-Freeman	6,185,090
Kishimoto	JP 2000340460

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Dinkins whose telephone number is (571) 272-1972. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Dinkins

**ANTHONY DINKINS**  
**PRIMARY EXAMINER**  
AU 2831

